

# AURA

## ERO MINIBEAM 12

RGBW LED beam movinghead



## User manual

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*User manual version: 3.0   Creation date + author initials: 27-12-2013 RV   Revision date + author initials: 18-02-2014 RV*

# Safety instructions



## WARNING!



**Always keep this device away from moisture and rain! Hazardous electrical shocks may occur!**



## WARNING!



**Only connect this device to a matching power outlet. This device is intended to work on a specified AC currency. Connecting this device to power outlets with other voltages may result in permanent damage and possible hazardous situations, such as fire or electrical shocks!**



## WARNING!



**Be careful with every operation of this device. Touching live wires inside and outside the unit may cause hazardous electrical shocks!**

This unit must be operated by, or under the supervision of an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device has to:

- Be qualified
  - Follow the instructions of this manual
  - Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information and consultation.
  - To make sure the device maintains in perfect condition and for safe operation, it is necessary for the user to follow the instructions and warning notes of this user manual.
  - Damage caused by improper use or modifications to the device are not covered by warranty.
  - This device does not have any user-serviceable parts inside. Servicing of this device needs to be done by qualified technicians.
- Important notes regarding safety and health:**
- Never let the power cord come in contact with other cables. Handle the power cord and all connectors with the mains with caution.
  - Never remove any warning or informative labels from the unit
  - The ground contact always needs to be connected. Do not cover or remove the ground contact.
  - Never leave cables lying around
  - Do not open the device and do not modify any hard- or software of this unit.
  - Do not insert this object into air vents.
  - Do not connect this device to a dimmerpack.
  - Do not switch the system on and off frequently as this will reduce the lifespan of the device.
  - Do not drive the inputs of the fixture with a signal larger than required to work at full performance.
  - Only use this device indoor, avoid contact with water, moist or other liquids. Do not place items filled with liquids on top of the unit.

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- Avoid nearby flames or heat sources, do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period or time, when servicing is needed or when the device needs cleaning.
- Only handle the power cord by its connectors. Never pull the cable to remove a connector from its socket, as this could lead to damage and electrical shocks.
- Always operate this device with a stable AC current.
- Always operate this device with the AC ground wire connected to the electrical system's ground.
- Never use other types of cables than specified in the manual, do not use defective or bad functioning cables. Contact your dealer when the included or required cables do not work properly with this device.
- When the device has been exposed to large temperature differences (for example, transport from outdoor to indoor), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moist might build up inside the unit, which may cause shortcuts and/or electrical shocks.

#### **Guidelines and types of use:**

- This device is intended to be used by professionals on stage, in theaters, clubs and other equal venues.
- This device is not suitable for children and always needs to be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
  - indoor swimming pools where chlorine is used.
  - Beaches, where sand and salt are present.
  - Outdoor, without roof protection
  - Indoor areas where intense heat sources are present or where the temperature exceeds levels

which are comfortable for humans.

- Only use the included power adapter and only connect the device to a suitable power outlet with the correct output voltage. Connecting the device to a power outlet with the wrong type of voltage or using the product with a wrong type of power supply may cause permanent damage to the device.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid brute force during the installation and operation of this device.
- Familiarize yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in other ways than described in this user manual may cause damage and injury. Ayra does not take responsibility for any damage or injury caused by improper use.

#### **Storage and transport:**

- This device is intended for mobile use. When transported, use the original packaging of the product, or a fitting flightcase, preferably filled with foam.
- This device is not intended for permanent use. Operation breaks will ensure that the lifespan of the device remains unchanged.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flightcase.
- Store the device indoor, dry and do not expose the device to extreme temperature differences.

#### **Housing:**

- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use the power cord when the cores are visible. Contact your dealer for a replacement if needed.
- Avoid the buildup of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. When using the device intensively, the cleaning frequency needs to be increased.

#### **Fuses:**

- The main fuse of this device is to be found on the rear of the device. In most cases, directly next to the power inlet.
- Only replace a fuse for a new one with the same type and rating! Do not use a fuse with a higher or lower

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rating.

- Do not bridge the fuse with electrical wires, aluminum foil, as the fuse is used for protection against electrical shocks and short circuit.
- Always mount the fuse cover back to the fuse compartment.

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# Box contents

## Box contents

1x ERO Minibeam 12  
1x power cable  
1x installing bracket  
1x small bag with mounting hardware

## Unit and accessory inspection

- Always use the supplied power cable to connect the unit to a power supply. If the cable appears broken or has visible damage, do not use it.
- If the unit is not going to be used for a longer period of time, disconnect it from the power supply and store it in a dust-free environment.
- Always check the unit for possible damage before use. If you suspect that something is wrong with the unit, do not connect it to a power source! When you suspect that your unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.
- When your device does not generate any light, do not look directly into the lens. When the fixture suddenly produces a beam, it may cause injury to your eyes.

The logo for AURORA is displayed in a large, bold, sans-serif font. The letters are a light gray color. The 'A' and 'R' are particularly prominent, with the 'R' having a thick vertical stem and a curved top. The 'U' is also thick and blocky. The 'O' is a simple circle. The 'R' and 'A' at the end are also thick and blocky.

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# Device overview



1. Menu buttons
2. Menu display
3. Power input with fuse compartment (IEC)
4. ON/OFF switch
5. DMX input (3P XLR)
6. DMX output (3P XLR)

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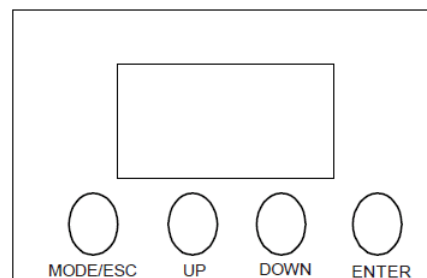
# Setting up the unit

To activate the unit, connect the included power supply to the unit and a suitable 230V, 50 Hz power outlet. Switch the on/off switch to the 'ON' position, the LED movinghead will activate.

Give the movinghead time to calibrate the stepping motors, which are used to determine the position of the head. You may hear and see some shaking, which is normal. The stepping motors use an end point to determine the beginning and end of their movement. After calibration, the movinghead will start the previously used mode, but by default it is set to DMX mode.

The status of the movinghead is shown on the display (which automatically shuts off after a few seconds of inactivity). The shown values determine the current status and can be changed by pressing the buttons on the control panel. The four buttons each have their own function, for easy navigation.

Press the 'MODE/ESC' button to switch modes, so you can easily select the built-in automatic, music controlled or DMX mode.



To adjust settings, or to read certain values, the display will show several codes. An explanation for each code can be found below:

| Display status | Value options | Function                           |
|----------------|---------------|------------------------------------|
| DMX 512        | 001-512       | DMX address                        |
| Channel        | 14/29 CHs     | DMX CH mode, 13 or 29 DMX-channels |
| Master Sound   | 0/99          | Sound activated mode sensitivity   |
| Master Auto    | 00-15         | Auto run mode                      |
| Master Prog    | 00-15         | Built-in program selection         |
| Master Fade    | 00-15         | Colour fade(fast-slow)             |
| Master Shut    | 00-15         | Strobe( Fast to Slow)              |
| MOTOR X        | 000-255       | Pan( Slow to Fast)                 |
| MOTOR Y        | 000-255       | Tilt( Slow to Fast)                |
| Info Sys       | /             | System info                        |
| Setup R        | 000-18000     | Red LED intensity                  |
| Setup G        | 000-18000     | Green LED intensity                |
| Setup B        | 000-18000     | Blue LED intensity                 |
| Setup W        | 000-18000     | White LED intensity                |
| Setup W        | 000-18000     | RGBW full on intensity             |

When using several fixtures in master/slave mode, please note that only the first fixture can be set to master settings. The other fixtures will respond as slaves, which will mimic the movement, intensity and colours of the first fixture.

## Working modes:

The ERO Minibeam 12 movinghead is equipped with several working modes:

- Sound-active mode: The fixture will react to music with an internal microphone. The microphone sensitivity is digitally adjustable with the LCD-display and menu-buttons.
- Auto mode: The fixture will run through different colours and the built-in programs. The programs and colours are adjustable with the LCD-display and menu buttons.
- Slave mode: The unit will run as slave fixture, thus mimicking the master fixture. XLR-XLR cables are required for this function (not included).
- DMX control mode: Select a DMX starting address and a DMX channel mode to operate this fixture with a DMX-controller. The fixture either uses 13 or 29 channels, depending on the settings you have chosen.

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# DMX and DMX channel settings

The ERO MINIBEAM 12 movinghead is designed for control with any DMX-controller or DMX-software, to control every function of the device in detail. For optimal use of the DMX-channels (which can make a large difference with multiple fixtures) there are two DMX working modes available, basic and advanced.

| DMX Channel | Function       | Description                     | Value |
|-------------|----------------|---------------------------------|-------|
| 1           | Dimmer         | Dimmer Off to Full              | 0-225 |
| 2           | Strobe         | Strobe(slow to fast)            | 0-225 |
| 3           | Pan            | Fan                             | 0-255 |
| 4           | Tilt           | Tilt                            | 0-255 |
| 5           | R              | Red LED intensity               | 0-255 |
| 6           | G              | Green LED intensity             | 0-255 |
| 7           | B              | Blue LED intensity              | 0-255 |
| 8           | W              | White LED intensity             | 0-255 |
| 9           | Auto run       | Built-in programs               | 0-255 |
| 10          | Auto run speed | Built-in programs(slow to fast) | 0-255 |
| 11          | Fan/Tilt speed | Pan/Tilt speed( Slow to Fast)   | 0-255 |
| 12          | Fan fine       | Fan fine                        | 0-255 |
| 13          | Tilt fine      | Tilt fine                       | 0-255 |

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| (The below channels are available only in 29CH mode.) |                         |              |       |
|---|-------------------------|--------------|-------|
| 14  | Cluster 1: Red dimmer   | Red 0-100%   | 0-255 |
| 15  | Cluster 1: Green dimmer | Green 0-100% | 0-255 |
| 16  | Cluster 1: Blue dimmer  | Blue 0-100%  | 0-255 |
| 17  | Cluster 1: White dimmer | White 0-100% | 0-255 |
| 18  | Cluster 2: Red dimmer   | Red 0-100%   | 0-255 |
| 19  | Cluster 2: Green dimmer | Green 0-100% | 0-255 |
| 20  | Cluster 2: Blue dimmer  | Blue 0-100%  | 0-255 |
| 21  | Cluster 2: White dimmer | White 0-100% | 0-255 |
| 22  | Cluster 3: Red dimmer   | Red 0-100%   | 0-255 |
| 23  | Cluster 3: Green dimmer | Green 0-100% | 0-255 |
| 24  | Cluster 3: Blue dimmer  | Blue 0-100%  | 0-255 |
| 25  | Cluster 3: White dimmer | White 0-100% | 0-255 |
| 26  | Cluster 4: Red dimmer   | Red 0-100%   | 0-255 |
| 27  | Cluster 4: Green dimmer | Green 0-100% | 0-255 |
| 28  | Cluster 4: Blue dimmer  | Blue 0-100%  | 0-255 |
| 29  | Cluster 4: White dimmer | White 0-100% | 0-255 |

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# Installation and maintenance

## Mounting the bracket

On the bottom of the movinghead, there are two holes to mount the included bracket, using the included bolts. It is possible to mount a G-clamp or halfcoupler to this bracket. It is also possible to mount the bracket on a ceiling, wall, bar, floor, desk or any flat surface. Use proper equipment to install this fixture, as a dropping fixture may cause severe injury! Ayra is not responsible for any damage or injuries caused by improper installation.

## Cleaning

Make sure to clean the exterior of the unit frequently, as the build-up of dust and dirt may have negative effects on the cooling and optics of the fixture.

The exterior (plastic parts) of the unit can be cleaned with a damp cloth. The optics of the fixture can be cleaned with a clean cloth or paper towel, with the addition of a non-aggressive glass cleaning solution.

Clean the fan outlet and the cooling vents with a small brush, while using vacuum cleaner suction to remove any loose dust and/or dirt.

Clean the exterior of this fixture once a month. When using this fixture intensively, the frequency of maintenance needs to be increased.

## Transport

When using this fixture in mobile setups, provide sufficient protection during transport. Use the original packaging of this unit, or use a professional flightcase with proper foam inlay. This way the electronics, optics and housing are protected against severe shocks, exterior damage and failing electronics.

Make sure the moving parts of the movinghead (pan and tilt motors) are secured during transport. Shocks and fierce movement of the pan and tilt stepping motors may cause permanent damage.

After use, let the unit cool down for at least 10 minutes. When using DMX, use the 'black out' option on your DMX controller. This way the unit is positioned in a static stand-by mode and the internal fan is able to cool down the internal electronics, which decreases the chance of damage during transport.

## Replacing the internal fuse

First check whether a failing power supply may be the cause of malfunction. When you suspect that the internal fuse is broken, the fuse can be replaced by removing the fuse cover, located directly below the power inlet.

**WARNING:** Before changing the fuse, always disconnect the fixture from your wall outlet or any other power supply to prevent electric shocks.

Always replace a broken fuse with a fuse that has the same type and rating. After the fuse has been replaced, always close the fuse-cover. Reconnect the fixture to your power supply and check whether the problem is solved. When this does not solve your problem, contact your local dealer for help.

## Spare parts

This unit has no user serviceable parts inside. When any damage to internal components occurs, contact your local dealer or a specialized technician in order to repair the fixture.

## Checkup

To prevent dangerous situations, make sure your fixture is in optimal condition before using it. Check your fixture frequently by using the following checklist:

- All screws must be mounted tightly.
- Check all screws and metal parts for corrosion. No visible corrosion may be present.
- The exterior of your fixture must be in optimal condition. Check your fixture for dents, cracks or missing parts.
- Your installation spot must be in optimal condition. Check your installation spot for corrosion, cracks, dents and strength.

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- Electrical components (connectors and cables) must be in optimal condition. Any form of damage (cuts, exposed wire cores or any other visual deformities) should not be present.

If any visual or mechanical damage is detected, contact your local dealer or a specialized technician. Do not use a damaged or failing fixture.

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# DMX lighting troubleshooting

If you have any problems with DMX lighting, consult this troubleshooting section to solve any difficulties with your product. If this troubleshooting section does not solve your problem, contact your dealer for more information and help.

This troubleshooting section contains the most frequent problems and is not a complete collection of possible faults, defects and solutions. The troubleshooting section applies for DMX controllers, DMX cabling and DMX lighting fixtures. It is possible that not all described problems, causes and solutions apply to your situation as product details may vary from product to product.

| Problem   | Possible Cause  | Solution   |
|---|---|--|
| The fixture does not activate itself  | Blown fuse  | Check the fuse compartment for blown fuses and replace it if necessary.  |
|   | No power cable plugged in                                       | Plug in the power supply to a matching power outlet  |
|   | Power switch is not in the ON position                          | Turn on the device by switching the ON/OFF switch to the ON position, if available   |
| The fixture does not respond to DMX signals   | Wrong DMX address   | Set the DMX address to the right value   |
|   | DMX controller blackout function activated                      | Deactivate the blackout function of your DMX controller  |
|   | Faulty positioning of the DMX polarity switch on the controller | flip the polarity switch on your DMX controller  |
|   | No response or DMX activity signal LEDs active                  | Check your DMX cables for possible connection breaks and replace them if necessary.  |
| The fixture does not respond to sound   | Wrong working mode selected.                                    | Check if the sound activated mode of the fixture is activated.   |
|   | Microphone sensitivity level is set too low                     | Increase the microphone sensitivity of the built-in microphone   |
|   | Speaker placed too far away or lack of bass                     | Place your lighting effect closer to your speakers (or vice versa) and/or increase low frequency volumes. The microphone will not be triggered with high pitched sounds. |
| The beam output is very low   | Dirty/dusty optics  | Clean the lens and/or other optics with a dry or damp cloth  |
|   | Dimmer is not set to full output                                | Set all dimmer levels to 100% on your DMX console  |
| Sometimes the DMX signal is lost and/or some fixtures are flickering / behaving odd sometimes | Faulty/broken DMX cables  | Check your DMX cables for possible connection breaks and replace them if necessary.  |
|   | Power cable interference on your                                | Avoid installing the DMX and   |

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|   |   |  |
|---|---|--|
|   | DMX signal                                      | (high) power cables parallel to each other.  |
|   | No DMX terminator                               | Apply a DMX terminator at the end of your DMX-chain  |
|   | Signal loss or distortion in DMX values         | Apply a DMX booster in your DMX chain after 32 fixtures or less. After a maximum of 32 fixtures the DMX signal needs to be refreshed.  |
| Moving parts are not functioning well, values do not match and/or rattling sounds are noticed | Faulty stepping motor positioning               | Possible value loss of stepping motors. Activate the reset function, or unplug the power supply and plug it back in to activate the reset program. This will reset all values to the original 0-point. |
| The fixture does not respond fast enough to the set speed on my DMX controller                | Moving parts can not keep up with the set speed | Decrease the chase speed of your DMX controller, as the stepping motors of your fixture need some time to move from one point to another.  |
| The fixture does not respond to all DMX-channels  | Wrong DMX channel mode                          | Check the DMX channel mode of the fixture. If the wrong value is set, change the channel mode to a different setting and try again.  |

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# Technical specifications

- high power LED beam movinghead
- light source: 12x RGBW 10 Watt LED module
- CREE branded LED light source
- expected LED lifespan: 100.000 hours
- RGBW colour mixing for fluent color changes
- control over four separate LED segments for creative lighting applications and unique chase-effects
- high-precision stepping motors with smooth 16-bit movement
- movement speed adjustable for pan and tilt
- wide movement range: 540° pan, 180° tilt
- 0 - 100% dimmer for each colour + master dimmer
- narrow beam angle: 8°
- large graphic LCD display with menu buttons for easy access to several parameters and settings
- display flip function, for easy menu operation in hanging position
- working voltage: 90 – 250V AC, 50/60 Hz
- power: 120W max
- weight: 5 kg

## Working modes:

- Sound-active mode with internal microphone, digital sensitivity adjustment
- Auto mode with eight internal, customizable programs
- Master/slave mode
- DMX mode

## DMX control:

- 13 or 29 DMX-channels
- dimmer function for each colour + master dimmer
- dimmer function for each colour in each segment + master dimmer (only in 29-channel mode)
- strobe mode (0 – 30 Hz)
- pan and tilt control
- pan fine and tilt fine control
- RGBW master control (0 – 100% for each colour)
- pan/tilt speed adjustment (combined)
- auto run, select different internal chases with certain DMX values
- auto run speed, variable speed for pan and tilt combined in auto mode

## Connectors:

- DMX: 3p XLR male and female
- Power: IEC power connector

## Included accessories:

- Power cable with Shucko & IEC connectors
- Mounting bracket

## Connectors and wiring schematics:

### DMX-connections:

#### DMX-output

XLR mounting-socket:




#### DMX-input

XLR mounting-plug:



### Electrical wiring:

| Cable        | Pin     | International   |
|--------------|---------|---|
| Brown        | Live    | L   |
| Blue         | Neutral | N   |
| Yellow/Green | Earth   |  |

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